

LISTING OF CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A data packet processing device for processing data packets received from a network, including: a processor for processing data packets; an interface operable for transmitting data packets to and from an external memory; a scheduler for assigning priority information to received data packets, the priority information determining an order of data packets to be processed; an internal memory for storing data packets; a memory manager operable to cause storing data packets in the external memory and to provide data packets in the internal memory for being processed ~~by in the processor~~ processing means; wherein the memory manger provides data packets in the internal memory for being processed by the processor subject to the priority information assigned to the data packets.

2. (Original) A data packet processing device according to claim 1, wherein depending on the priority information assigned to a data packet, the memory manager transfers the data packet stored in external memory into internal memory.

3. (Original) A data packet processing device according to claim 1, wherein depending on the priority information assigned to a data packet, the memory manager transmits the data packet from the internal memory to the external memory.

4. (Original) A data packet processing device according to claim 2, wherein the

memory manager means keeps a data packet stored in the internal memory if the priority information assigned to the data packet indicates a high priority, and transmits the data packet to the external memory if the priority information assigned to the data packet indicates a low priority.

5. (Original) A data packet processing device according to claim 4, wherein the internal memory has a size to store a number x of data packets to be processed next, wherein the priority of a data packet is high if the assigned priority information indicates that the data packet is within the next $x-1$ ones to be processed and/or wherein the priority of the data packet is low if the assigned priority information indicates that the data packet is not within the next $x-1$ ones to be processed.

6. (Original) A method comprising processing data packets, wherein data packets are received from a network; wherein the data packets are processed; wherein priority information is assigned to the received data packets, the priority information determining an order of data packets to be processed; wherein the data packets are stored in a fast accessible memory wherein depending on the priority information assigned to received data packets, the respective data packets are provided in the fast accessible memory for being processed or transferred from the fast accessible memory to a main memory.

7. (Original) A method according to claim 6, wherein depending on the priority information assigned to data packets, the provision of the respective data packets in the fast accessible memory for being processed is performed by: transferring the respective data packet to the fast accessible memory if the data packet is stored in said main memory; or keeping the respective data packet stored in the fast accessible memory if the data packet is stored in the fast

accessible memory.

8. (Original) A method according to claim 6, wherein the respective data packet is kept stored in the fast accessible memory if the priority information assigned to the respective data packet indicates a high priority, or is transferred to the main memory to be stored if the priority information assigned to the respective data packet indicates a low priority.

9. (Original) A method according to claim 8, wherein the internal memory has a size to store a first number x of data packets, wherein the priority of a data packet is high if the assigned priority information indicates that the data packet is within the next $x-1$ ones to be processed, and/or wherein the priority of a data packet is low if the assigned priority information indicates that the data packet is not within the next $x-1$ ones to be processed.

10. (Currently Amended) An article of manufacture comprising a tangible storage computer usable medium having computer-readable by a computer and storing instructions for execution by the computer for program code means embodied therein for causing the processing of data packets in accordance with, ~~the computer readable program code means in said article of manufacture comprising computer readable program code means for causing a computer to effect the steps of~~ the method of claim 6.

11. (Currently Amended) A program storage device comprising a tangible storage medium readable by a computer and storing instructions for execution by the computer readable by machine, ~~tangibly embodying a program of instructions executable by the machine to perform~~

~~method steps for processing data packets in accordance with~~, ~~said method steps comprising the~~
steps of the method of claim 6.

12. (Cancelled)

13. (Original) A method for processing data packets received from a network, said method comprising: assigning priority information to received data packet; employing the priority information to determine a processing order of the received data packets; storing the received data packets in a fast accessible memory; providing the received data packets in the fast accessible memory for being processed in accordance with the priority information; and transferring the received data packets from the fast accessible memory to a main memory in accordance with the priority information.

14. (Currently Amended) An article of manufacture comprising a tangible storage medium ~~computer usable medium having computer-readable by a computer and storing~~
instructions for execution by the computer to process ~~program code means embodied therein for~~
~~causing the processing of data packets in accordance with~~, ~~the computer readable program code~~
~~means in said article of manufacture comprising computer readable program code means for~~
~~causing a computer to effect the steps of~~ method of claim 13.

15. (Currently Amended) A program storage device comprising a tangible storage medium readable by a machine, and storing instructions for execution ~~tangibly embodying a~~
~~program of instructions executable by the machine to perform method steps for processing data~~

packets in accordance with the, ~~said method steps comprising the steps of claim 13.~~

16. (Original) A method for processing a data packet, said method comprising:
receiving the data packet from a network; storing the data packet in internal memory; determining a priority of the received data packet and providing priority information assigned to the data packet; if the priority of the data packet is high, keeping the data packet is kept in the internal memory for processing as one of the next data packets; and if the priority of the data packet is not high, transferring the data packet to external memory.

17. (Currently Amended) A method as recited in claim 16[[17]], further comprising checking if a next packet is received having a high priority; if the next packet is received having a high priority, repeating the steps of storing and determining for the next packet; and if the next data packet is not received, waiting until the next data packet is received and repeating the step of checking.

18. (Currently Amended) An article of manufacture comprising a tangible computer storage usable medium readable by a computer and storing instructions for execution by the computer ~~having computer readable program code means embodied therein for causing the processing of data packets in accordance with, the computer readable program code means in said article of manufacture comprising computer readable program code means for causing a computer to effect the steps of the method of claim 16.~~

19. (Currently Amended) A program storage device comprising a tangible storage

medium readable by a computer and storing a set of computer readable instructions for execution
by the computer readable by machine, tangibly embodying a program of instructions executable
by the machine to perform method steps for processing data packets in accordance with the , said
method steps comprising the steps of claim 16.